Designed to **Reduce** the Risk of **Occlusion**\(^{(1)}\)
Use of Vortex Port Technology results in average savings per patient of $1,224 over conventional ports(2).
low-profile design

high level patient comfort

Safe has never been this easy: raise needle cover ninety degrees, hold base firmly, and lift wings straight up.

The Lifeguard® needle is a safety non-coring needle for accessing ports. It can be power-injectable or with a Y-site.

The Lifeguard’s low profile design provides patient comfort and dresses easily.

Low profile for patient comfort

Soft wings designed for minimal skin irritation

Non-siliconized needle helps prevent dislodgment from port

Needleless Access Connector (NAC) Y-site

Our Needleless Access Connector (NAC) Y-site eliminates the step of removing an injection cap, making the connector quick and easy to use.

One-handed clamps for positive pressure technique

Universal luer locks accommodate all injection caps

Latex and DEHP free
The Smart Port* product line combines the benefits of the Vortex Technology with high pressure injection capabilities.

**Power-injectable**

The Smart Ports are clinically indicated for power-injections up to 5mL/sec and 300 psi and are MRI-conditional - 3 Tesla.

**Additional benefits of the Smart Ports:**

- **CT-engraved port body** identified through chest X-Ray or CT Scout Scan
- **Large septum** diameter offers greater target area
- **Silicone-filled suture holes** prevent tissue ingrowth for ease of explants
- **One-step locking mechanism / strain relief** means fast, simple and secure procedures
- **Silicone or Polyurethane** catheter options with centimeter markings
- **LIFEGUARD** Safety non-coring needle included in all Smart Port trays.

**Smart Port patient Education Packet**

When a Smart Port power-injectable port is implanted, each patient receives an education packet—including an information booklet, ID card, key ring card and ID bracelet.
## Vortex VX

**Dimensions**: ID x OD

- **9.8Fr**: 1.6mm x 3.2mm L 53cm
- **7.0Fr**: 1.3mm x 2.4mm L 76cm
- **6.6Fr**: 0.9mm x 1.7mm L 76cm
- **5.1Fr**: 0.7mm x 1.7mm L 76cm
- **8.4Fr**: 1.6mm x 2.8mm L 76cm
- **5.7Fr**: 1.0mm x 1.9mm L 76cm
- **5.1Fr**: 1.0mm x 1.7mm L 76cm

**Port design and dimensions**

- **Vortex VX**
  - H: 13.5mm, Base: ø 26.8mm, Septum: ø 11.9mm, V: 0.6ml, W: 12.5g
  - Detached: P5455K, P5355K
  - Attached: P5405K, P5305K

- **Vortex LP Plastic**
  - H: 13.2mm, Base: ø 31.8mm, Septum: ø 12.7mm, V: 0.7ml, W: 6.5g
  - Detached: LVTX7013
  - Attached: LVTX7015

- **Vortex LP**
  - H: 12.6mm, Base: ø 31.8mm, Septum: ø 12.7mm, V: 0.7ml, W: 14.5g
  - Detached: LVTX5013
  - Attached: LVTX5015

- **Vortex VX Low-Profile**
  - H: 11.0mm, Base: ø 23.0mm, Septum: ø 7.7mm, V: 0.2ml, W: 8.5g
  - Detached: P12355K, P12155K
  - Attached: P12305K, P12105K

- **Vortex TR Low-Profile**
  - H: 10.1mm, Base: ø 24.4mm, Septum: ø 10.2mm, V: 0.5ml, W: 9.5g
  - Detached: PSDX-10-I**, P12105K
  - Attached: PSAX-10-I**, P12105K

- **Vortex LP Low-Profile**
  - H: 9.7mm, Base: ø 23.8mm, Septum: ø 10.2mm, V: 0.5ml, W: 9.0g
  - Ideal for chest and peripheral placement
  - Detached: LVTX5057
  - Attached: LVTX5557, LVTX5555

- **Vortex MP**
  - H: 9.7mm, Base: ø 23.8mm, Septum: ø 10.2mm, V: 0.3ml, W: 6.8g
  - Ideal for chest and peripheral placement
  - Detached: MP-PSSDT
  - Attached: MP-PSSAT

---

**Dual Vortex LP**

- H: 12.5mm
- Base: ø 28.7x 45.9mm
- Septum: ø 12.7mm each
- V: 0.9ml each, W: 30g
- Detached: LVTX5015

**Dual Vortex Low-Profile**

- H: 12.5mm
- Base: ø 28.7x 45.9mm
- Septum: ø 12.7mm each
- V: 0.9ml each, W: 30g
- Detached: LVTX5015

---

**Tray components**: Port system, Catheter, Locking mechanism (detached models), Non-coring needle, Introducer needle, Vein pick, Introducer, Guide wire, Infusion set, Blunt needle (detached models), Tunnel, 10 mL syringes

---

**Silicone-filled suture holes**

---

**Vortex VX**

**Vortex LP**

**Vortex TR Low-Profile**

**Vortex MP**

---

**AngioDynamics**
**ORDER REFERENCES** ("Silicone-filled suture holes")

<table>
<thead>
<tr>
<th>Port design and dimensions</th>
<th>Catheter material</th>
<th>Silicone</th>
<th>Polyurethane (PUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Catheter Dimensions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>L 66cm</td>
<td>L 66cm</td>
<td>L 66cm</td>
</tr>
<tr>
<td></td>
<td>ID 1.6mm x OD 3.2mm</td>
<td>ID 1.4mm x OD 2.5mm</td>
<td>ID 1.5mm x OD 2.7mm</td>
</tr>
<tr>
<td>Smart Port CT</td>
<td>Detached</td>
<td>CT96STSD**</td>
<td>CT75STSD**</td>
</tr>
<tr>
<td>H: 13.0mm, Base: 26.8mm,</td>
<td></td>
<td>CT96STSD-NF</td>
<td>CT75STSD-NF</td>
</tr>
<tr>
<td>Septum: ø 11.9mm, V: 0.7ml</td>
<td>CT80STPD**</td>
<td>CT80STPD-NF</td>
<td></td>
</tr>
<tr>
<td>W: 12.5g</td>
<td></td>
<td>CT80STPA**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attached</td>
<td>CT96STSA**</td>
<td>CT75STSA**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT80STPD-NF</td>
<td></td>
</tr>
<tr>
<td>Smart Port CT Low-Profile</td>
<td>Detached</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H: 10.8mm, Base: 24.0mm,</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Septum: ø 10.2mm, V: 0.4ml</td>
<td></td>
<td>-</td>
<td>CT66LTPD**</td>
</tr>
<tr>
<td>W: 9.5g</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Smart Port CT Mini</td>
<td>Detached</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H: 10.2mm, Base: 17.3mm,</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Septum: ø 10.2mm, V: 0.3ml</td>
<td></td>
<td>-</td>
<td>CT66LTPD**</td>
</tr>
<tr>
<td>W: 6.8g</td>
<td></td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**ORDER REFERENCES**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Length</th>
<th>Power Injectable with Smart Port CT</th>
<th>Catalog</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Ga</td>
<td>0.75&quot; - 19mm</td>
<td>Yes</td>
<td>LG-19-75</td>
</tr>
<tr>
<td>19 Ga</td>
<td>1&quot; - 25mm</td>
<td>Yes</td>
<td>LG-19-100</td>
</tr>
<tr>
<td>20 Ga</td>
<td>0.50&quot; - 13mm</td>
<td>Yes</td>
<td>LG-20-50</td>
</tr>
<tr>
<td>20 Ga</td>
<td>0.75&quot; - 19mm</td>
<td>Yes</td>
<td>LG-20-75</td>
</tr>
<tr>
<td>20 Ga</td>
<td>1&quot; - 25mm</td>
<td>Yes</td>
<td>LG-20-100</td>
</tr>
<tr>
<td>20 Ga</td>
<td>1.5&quot; - 38mm</td>
<td>Yes</td>
<td>LG-20-150</td>
</tr>
<tr>
<td>22 Ga</td>
<td>0.50&quot; - 13mm</td>
<td>No</td>
<td>LG-22-50</td>
</tr>
<tr>
<td>22 Ga</td>
<td>75&quot; - 19mm</td>
<td>No</td>
<td>LG-22-75</td>
</tr>
<tr>
<td>22 Ga</td>
<td>1&quot; - 25mm</td>
<td>No</td>
<td>LG-22-100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With Y-site NAC</th>
<th>Gauge</th>
<th>Length</th>
<th>Power Injectable</th>
<th>Catalog</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19 Ga</td>
<td>0.75&quot; - 19mm</td>
<td>No</td>
<td>LG-19-75NY</td>
</tr>
<tr>
<td></td>
<td>19 Ga</td>
<td>1&quot; - 25mm</td>
<td>No</td>
<td>LG-19-100NY</td>
</tr>
<tr>
<td></td>
<td>20 Ga</td>
<td>0.50&quot; - 13mm</td>
<td>No</td>
<td>LG-20-50NY</td>
</tr>
<tr>
<td></td>
<td>20 Ga</td>
<td>0.75&quot; - 19mm</td>
<td>No</td>
<td>LG-20-75NY</td>
</tr>
<tr>
<td></td>
<td>20 Ga</td>
<td>1&quot; - 25mm</td>
<td>No</td>
<td>LG-20-100NY</td>
</tr>
<tr>
<td></td>
<td>20 Ga</td>
<td>1.5&quot; - 38mm</td>
<td>No</td>
<td>LG-20-150NY</td>
</tr>
<tr>
<td></td>
<td>22 Ga</td>
<td>0.50&quot; - 13mm</td>
<td>No</td>
<td>LG-22-50NY</td>
</tr>
<tr>
<td></td>
<td>22 Ga</td>
<td>75&quot; - 19mm</td>
<td>No</td>
<td>LG-22-75NY</td>
</tr>
<tr>
<td></td>
<td>22 Ga</td>
<td>1&quot; - 25mm</td>
<td>No</td>
<td>LG-22-100NY</td>
</tr>
</tbody>
</table>

*AngioDynamics, the AngioDynamics logo, SmartPort, LifeGuard, Smart Angle, FluoroMax, PeelPro and Snap-lock are trademarks and/or registered trademarks of AngioDynamics, Inc., an affiliate or a subsidiary.

**CAUTION:** Federal Law (U.S.) restricts the sale of this device by or on the order of a physician.

**CONTRAINDICATIONS:** AngioDynamics port systems should not be implanted in the presence of known or suspected infections, septicemia, or patients who have exhibited phlebitis intolerance to the materials of construction, or patients whose body size or tissue is insufficient to accommodate the size of the port or catheter.

**WARNINGS AND PRECAUTIONS:** Please see package insert for the complete list of warnings and precautions.

**POTENTIAL COMPLICATIONS:** Use of port systems involves potential risks normally associated with the insertion or use of any implanted device or indwelling catheter including but not limited to: infection, pneumothorax, catheter malposition, migration or fragmentation, catheter plugging or occlusion, hematoma, thrombosis, embolism, endocarditis, thoracic duct injury, paraspinal or intravascular injection, and drug extravasation (leakage). Occlusion may result from clot formation inside the port, precipitate formation inside the port from incompatible drugs, or from catheter tip placement against a vein wall or valve.

**Indications, contraindications, warnings and instructions for use can be found in the instructions for use supplied with each device. Observe all instructions prior to use.**